GALGOTIAS UNIVERSITY

ADMISSION NUMBER												

School of Engineering

M.Tech Power System Engineering
Mid Term Examination - May 2024

Duration : 90 Minutes
Max Marks : 50

Sem II - G2PI202T - Electric and Hybrid Vehicles

General Instructions
Answer to the specific question asked
Draw neat, labelled diagrams wherever necessary
Approved data hand books are allowed subject to verification by the Invigilator

1)	What is meant by a parallel hybrid electric vehicle?	K2	(2)
2)	List the various components of HEV drive train.	K1	(3)
3)	What is the cell chemistry of Li-ion battery?	K2	(4)
4)	Compare hybrid and electric vehicle.	K2	(6)
5)	List three factors contribute to engine generated tractive effort the most.	K3	(6)
6)	Compare the hybrid electric vehicles and conventional vehicles.	K3	(9)
7)	What are the common problems associated with lead acid batteries.	K4	(8)
8)	Explain the terms charge capacity, specific energy, energy density, specific power, charge efficiency,energy efficiency, C rate for batteries.	K4	(12)
	OR		
	Explain lead-acid battery schematic and physical structure.	K4	(12)